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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/613,483

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Alan Edward Palmer

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07/25/2007

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EXAMINER

MCCORMICK EWOLDT, SUSAN BETH

ART UNIT

PAPER NUMBER

1661

MAIL DATE

DELIVERY MODE

07/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/613,483

Applicant(s)

PALMER ET AL.

Examiner

S. B. McCormick-Ewoldt

Art Unit

1661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The finality of the Office action dated January 19, 2007 is withdrawn in view of the current Office action.

The amendment of May 21, 2007 is hereby acknowledged and entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims Pending

Applicant has added claim 18. Claims 1-18 are pending. Claims 1-18 are examined.

Claim Objections

Claim 16 is objected to because of the following informalities: "20 C" should read -- 20°C--. Appropriate correction is required.

Claim 14 and 15 are objected to because of the following informalities: "Aw" should read --A_w--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 14 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 6 and 18, the term "reducing" is indefinite as it is not defined in the specification. Clarification is needed.

In claim 14 (c), it is not clear as to the recitation "of diol or triol a humectant"? Clarification is needed.

All other cited claims depend directly or indirectly from rejected claims and are, therefore, also rejected under U.S.C. 112, second paragraph for the reasons set forth above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxwell *et al.* (US 6,063,432) in view of Cook *et al.* (US 4,451,488), Heidlas *et al.* (US 6,288,130), Leusner *et al.* (US 6,468,568) and Nanbu *et al.* (US 6,074,675).

Maxwell *et al.* (US 6,063,432) teach a nutritional bar comprising soy protein, with the soy protein in the form of isolates, grits and nuts, which is the major source of protein of the nutritional bar. The total protein is from 25% wt. to 35% wt. having isolates from 7.5-12.5%, soy grits from 7.5-12.5% and soy nuts from 7.5-12.5% (col. 2, lines 43-53; Table 1). Maxwell also teaches using a humectant such as maltitol or mannitol, both of which are triol polyols, in the range of 5-20% wt. (col. 2, lines 59-67, Table 1). Maxwell teaches using a reducing sugar, such as fructose, in 5-20% weight (col. 2, lines 10, 63-65). In addition, Maxwell includes minerals such as zinc, copper, manganese, chromium and iron (col. 3, lines 14-15). As disclosed in the specification, encapsulated minerals can refer to proteins such as isolated soy proteins (pg 13, lines 1-8).

Maxwell *et al.* do not disclose specifically the protein in the form of nuggets or where the nuggets comprise 55% to about 100% of soy and/or rice protein or disclose using glycerol or that the glycerol is in the amount of 3% to about 10% or where the transition metals is in a water insoluble form at 20°C or where the nutrition bar is A_w of 0.45 or less.

Cook *et al.* discloses the use of about 3% by wt. of glycerol (a triol polyol) and which acts as a humectant, in a food bar. Additionally, A_w (i.e. water activity) is between .2 to about 0.55 (see abstract; col. 2, lines 9-17, 45-48; col. 4, 17-20 and claims 1, 3 and 6). Cook also discloses that propylene glycol, a diol polyol, and sorbitol, a triol polyol, is used in the food/snack bar (col. 3, 17-22).

Leusner *et al.* (US 6,468,568) disclose encapsulated minerals in foods without affecting the palatability and appearance of the foods (col. 7, lines 61-64; col. 10, lines 54-58).

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Nanbu *et al.* (US 6,074,675) discloses insoluble minerals such as ferric oxide, iron carbonate, ferric pyrophosphate and ferrous phosphate, is insoluble in water at 25°C.

It would have obvious to one of ordinary skill in the art at the time of invention was made to use the teachings of Maxwell and to modify the nutritional bar by incorporating diol and triol polyols, such as propylene glycol, sorbitol and glycerol, and encapsulated transition metals, as taught by Cook and Leusner, because by incorporating all the claimed ingredients in a nutritional bar, it would have assured a suitable 'packaging' and delivery of the nutritional product for the desired individual. Furthermore, one of ordinary skill in the art would have reasonable expectation of success in encapsulating transition metals, as taught by Leusner, because encapsulated minerals in foods do not affect the palatability and appearance of the foods. Additionally, encapsulating the transition metals would be obvious because it would have a "slow-release" of the nutrient and help mask an unpleasant taste and odor. By adding a humectant, one would form bars with a softer texture, chewy with good stable taste attributes as taught by Cook.

Although none of the references teach the soy and/or rice protein in the form of nuggets, a soybean nut as disclosed by Maxwell, would be considered a nugget because as disclosed in the specification (page 6 lines 29-32), the size of the nugget can be anywhere from 4mm³ to 35mm³. A soybean seed ranges from the size of 3.5mm to 9mm as evidenced by Jones *et al.* (2004/0244074) (see [0056]). Soy nuts are made from whole soybeans that have been soaked in water and baked until crisp and brown. Soy nuts contain most of the nutrients of the whole soybean.

Although none of the references specifically disclose that the soy and/or rice nuggets comprise about 55% to about 100% by weight of soy and/or rice protein, one of ordinary skill in the art at the time Applicants' invention was made, would have determined that soy nuts (nuggets) would contain predominantly protein as such is known in the art. Therefore, the soy nugget would comprise a substantial amount of protein. One would have been motivated to have modified the proportions of active ingredients in the nutritional bar in order to enable the content of the preparation to be matched with demands and needs of the food industry. Additionally, protein is known to have beneficial properties so therefore, one would have used soy nuggets to gain the benefits of protein.

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Regarding claim 12, although Nanbu does not specifically disclose that water-insoluble minerals, such as ferrous phosphate, are in a substantially water insoluble form at 20 °C, Nanbu does disclose the solubility of many of the water-insoluble minerals at a temperature of 25 °C and these values are very low, indicating poor solubility at 25 °C. Furthermore, Hoffman and Power teach that ferrous phosphate is completely insoluble in water (page 357-358). Based upon this fact, one of ordinary skill in the art would recognize that the solubility of the water-insoluble minerals disclosed by Nanbu, such as ferrous phosphate, would be in a substantially water insoluble form at 20 °C.

These references show that it was well known in the art at the time of the invention to use the soy protein, a humectant (i.e. glycerol) and transition metals in nutritional bars. It is *prima facie* obvious to combine two or more ingredients each of which is taught by the prior art to be useful for the same purpose in order to form a third composition which is useful for the same purpose. The idea for combining them flows logically from their having been used individually in the prior art. *In re Pinten*, 459 F.2d 1053, 173 USPQ 801 (CCPA 1972); *In re Susi*, 58 CCPA 1074, 1079-80; 440 F.2d 442, 445; 169 USPQ 423, 426 (1971); *In re Crockett*, 47 CCPA 1018, 1020-21; 279 F.2d 274, 276-277; 126 USPQ 186, 188 (1960).

Based on the disclosure by these references that soy protein, a humectant (i.e. glycerol) and transition metals are used in nutritional bars, an artisan of ordinary skill would have a reasonable expectation that a combination of the substances would also be useful in creating nutritional bars. Therefore, the artisan would have been motivated to combine the claimed ingredients into a single composition. No patentable invention resides in combining old ingredients of known properties where the results obtained thereby are no more than the additive effect of the ingredients. See *In re Sussman*, 1943 C.D. 518; *In re Huellmantel* 139 USPQ 496; *In re Crockett* 126 USPQ 186.

From the teaching of the cited references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

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Summary

No claim is allowed.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Susan B. McCormick-Ewoldt whose telephone number is (571) 272-0981. The Examiner can normally be reached Monday through Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiners' supervisor, Anne Marie Grunberg, can be reached at (571) 272-0975. The official fax number for the group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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